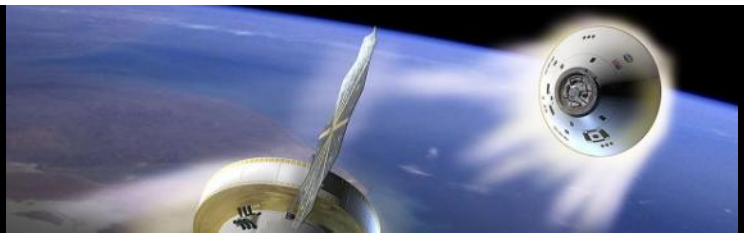
ORION
CREW EXPLORATION VEHICLE
WEEKLY ACCOMPLISHMENTS



03.04.11

The Crew Module Ground Test Article Heatshield Carrier Structure is ready for installation at the Lockheed Martin facility in Denver, Co.

The Crew Module Ground Test Article (shown above) was recently loaded into the station 3 tooling while the heatshield carrier structure (also shown above in background) was placed into it's installation fixture. Up next the team will move the heatshield carrier structure below the GTA in preparation for installation. The station 3 tooling being used had been in operation at the Operations and Checkout facility at Kennedy Space Center, but was recently moved to Denver to accommodate further Ground Test Article assembly activity. The tooling was designed with portability in mind to eliminate the need for multiple tooling stations, which ultimately reduces overall costs.

The Post-Landing Orion Recovery Test (PORT) capsule mockup was moved from the Logistics and Mockup Facility to the Neutral Buoyancy Lab High Bay in Houston, Texas for final preparations for Orion Crew Module Uprighting System (CMUS) testing.

The CMUS is designed to inflate five bags after the capsule has landed in the water to ensure the capsule in oriented in an upright position during splashdown. Tests will include the normal scenario of inflating all five bags along with scenarios where some bags fail to inflate. This test data will be used to validate simulations used to predict uprighting during CMUS verification.

Students Shaping America's Next Spacecraft Project— STEM School Kickoffs.

Orion team members Jeff Fox & Christie Sauers recently completed a 3 week swing of Texas briefing approximately 500 students at 2 universities and 13 high schools on the projects they'll be working on as part of the "*Students Shaping America's Next Spacecraft"* project. Schools briefed during this period are part of 3 Texas STEM centers, University of Texas at Tyler, Texas Tech & University of Texas Medical Branch. They reside in nearly 10 cities stretching from Odessa, Lubbock & Tyler to Houston, Galveston & Beaumont with school sizes ranging from 1A to 5A as well as several small STEM academies. Over the next several months, NASA and partner Lockheed Martin will be moving into the next phase of student mentoring including design of the mockup hardware, material selection, build, acceptance reviews and finishing with mockup installation.